

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A force sensor measuring applied forces, comprising:
a first member;
a second member, wherein the first member is positioned nearby to the second member;
a flexure, the flexure connecting the first member to the second member, wherein the flexure supports the first member with respect to the second member and allows the first member to move relative to the second member substantially along two axes; and
a readout mechanism measuring the displacement of the first member relative to the second member substantially along each of the two axes, wherein the applied forces are determined from the displacement of the first member relative to the second member.
2. (Original) The invention of claim 1 wherein the first member comprises an inner member and the second member comprises an outer member.
3. (Original) The invention of claim 1 wherein the readout mechanism comprises an optical electronic device.
4. (Original) The invention of claim 1 wherein the readout mechanism comprises an inductive readout device.
5. (Original) The invention of claim 1, further comprising:
a graspable handle, the graspable handle connected to the first member.
6. (Original) The invention of claim 5 wherein the handle is integrally formed with the first member.

7. (Currently Amended) The invention of claim 1, further comprising:
a printed circuit board comprising the readout mechanism, the printed circuit board positioned on one of the members and reading the relative displacement of the two members along each of the two axes.

8. (Original) The invention of claim 1 wherein the flexure comprises:
a plurality of stripes of materials of substantially equal dimension, wherein the strips of materials are adapted to connect to each other to form the flexure.

9. (Original) The invention of claim 8 wherein the strips of material have an aspect ratio of approximately 30:1.

10. (Original) The invention of claim 8 wherein the strips of material are formed in an L-shape.

11. (Original) The invention of claim 1 wherein the material comprising the flexure comprises a plastic material.

12. (Original) The invention of claim 1 wherein the material comprising the flexure comprises a spring steel material.

13. (Original) A flexure capable of complying with applied forces, comprising:
a first strip of material, and
a second strip of material, wherein the first strip of material is adapted to connect to the second strip of material to form the flexure element, and the flexure element is connected to a first member and a second member to allow a relative displacement between the first member and the second member and the first and second strips of material having a width that is at least twice its thickness.

14. (Original) The invention of claim 13 wherein the first and second strips of material comprise substantially equal dimensions.

15. (Original) The flexure element of claim 13 wherein the first and second strips of material are formed into L-shaped strips of material.

16. (Original) The invention of claim 13 wherein the strips of material comprise a plastic material.

17. (Currently Amended) The invention of claim 13 wherein the strips of material ~~comprises~~ comprise spring steel material.

18. (Currently Amended) The flexure of claim 13 wherein the dimensions of the L-shaped strips of material ~~comprises length L, thickness t, and height or depth w,~~ determine the compliance of the flexure.

19. (Currently Amended) The invention of claim ~~18~~ 13 wherein the width ~~w~~ of the first strip of material is approximately 30 times the thickness ~~t~~ of the first strip of material.

Claims 20-26 (Canceled).

27. (New) A force sensor measuring applied forces, comprising:
a first member comprising a handle having a longitudinal axis disposed in a predetermined first position, the handle being movable substantially along two axes so as to displace said handle such that the longitudinal axis is spaced from and substantially parallel to the first position;

a second member, wherein the first member is positioned nearby to the second member;

a flexure disposed between the first member and the second member; and
a readout mechanism operatively connected with the flexure and configured to measure the displacement of the first member relative to the second member substantially along each of the two axes, wherein the applied forces are determined from the displacement of the first member relative to the second member.